

SOUTH AFRICAN RADIO LEAGUE NEWS FOR SUNDAY 14 FEBRUARY 2021

Good morning and welcome to the weekly news bulletin of the South African Radio League read by [your name, call sign and QTH]

The South African Radio League broadcasts a news bulletin each Sunday in Afrikaans and English at 08:15 and 08:30 Central African Time respectively on HF and various VHF and UHF repeaters around the country. The bulletin is relayed on Echolink by Johan, ZS6JPL. The audio bulletins can be downloaded from the League website at www.sarl.org.za while the text bulletin can be downloaded from <https://sarlnewsbulletin.wordpress.com/>. To join the Mailchimp bulletin mailing list, send an e-mail to the SARL Secretary.

In the news today:

SARL AND AMSATSA VHF/UHF WORKSHOP ON 20 FEBRUARY - LAST CHANCE TO REGISTER

A “PERFECT CORONAL MASS EJECTION” COULD BE A NIGHTMARE

and

THE ZS5ZLB BIRTHDAY ACTIVITY

Stay tuned for more information on these and other interesting news items.

HAPPY BIRTHDAY LAURIE

On Friday 12 February, Laurie Devereaux, ZS5DL celebrated his 91st birthday. Laurie, the President and all the members of the SARL wish you a happy birthday!

SARL AND AMSATSA VHF/UHF WORKSHOP ON 20 FEBRUARY - LAST CHANCE TO REGISTER

If you have not yet registered for the SARL/AMSATSA VHF/UHF Workshop on Saturday 20 February, this is your last chance. Registration closes at midnight on Thursday 18 February. Visit www.sarl.org.za for the programme and registration form. The workshop will be presented on the Bluejeans platform and attendance is free for SARL and AMSAT SA members. For non-members there is a fee of R50.

Listen to this. You would like to take part in the activity on some of the UHF bands but do not have equipment? Anton Janovsky will show you how with a dongle and an amplifier. Find out about the next generation beacon programme, how repeater networks are put together and how the AMSATSA Dual band Yagi was designed, and how it operates.

HAVE YOU GOT A COPY OF THE 2021 DIARY OF EVENTS AND CONTEST MANUAL?

It is clear that many SARL members have not yet downloaded the 2021 Diary of Events and Contest Manual with questions on-air “What contest is this?” and “What is the exchange I must give?” and during the week receiving e-mails about the SARL National Field Day. Please go to www.sarl.org.za/public/contests/contestrules.asp and download a copy and you will see that the National Field Day will take place in March.

A “PERFECT CORONAL MASS EJECTION” COULD BE A NIGHTMARE

A new study in the research journal Space Weather considers what might happen if a worst-case coronal mass ejection (CME) hit Earth – a “perfect solar storm,” if you will. In 2014, Bruce Tsurutani of Jet Propulsion Laboratory (JPL) and Gurbax Lakhina of the Indian Institute of Geomagnetism introduced the “perfect CME.” It could create a magnetic storm with intensity up to the saturation limit, a value greater than the Carrington Event of 1859, the researchers said.

The interplanetary shock would arrive at Earth within about 12 hours, the shock impingement onto the magnetosphere would create a sudden impulse of around 234 nanoteslas (nT) and the magnetic pulse duration in the magnetosphere would be about 22 seconds. Orbiting satellites would be exposed to “extreme levels of flare and interplanetary CME (ICME) shock-accelerated particle radiation,” they said. The event would follow an initial CME that would “clear the

path in front of it, allowing the storm cloud to hit Earth with maximum force.” The CME’s 12-hour travel time would allow little margin for preparation. The CME would hit Earth’s magnetosphere at 45 times the local speed of sound and the resulting geomagnetic storm could be as much as twice as strong as the Carrington Event. Power grids, GPS, and other services could experience significant outages.

More recent research led by physicist Dan Welling of the University of Texas at Arlington took a fresh look at Tsurutani and Lakhina’s “perfect CME,” and given improvements in space weather modelling, he was able to reach new conclusions. Welling’s team found that geomagnetic disturbances in response to a perfect CME could be 10 times stronger than Tsurutani and Lakhina had calculated, especially at latitudes above 45 to 50°.

[ARRL Letter]

THE CLUB CHALLENGE

How would you like to have free Club affiliation for 2021/22? Three Clubs stand a chance of having their SARL affiliation paid for in the new financial year – how? By providing articles for the March, April, May and June issues of Radio ZS. Articles and photographs by Club members. Send your Club’s contribution to radiozs@sarl.org.za

You are listening to a news bulletin of the South African Radio League.

THE ZS5ZLB BIRTHDAY ACTIVITY

From 14 to 28 February, the Zululand Amateur Radio Club, ZS5ZLB will run a birthday station. Listen out on 80, 60 and 40 metres. Today, 14 February there will be a field station on 40 m from the Entumeni repeater site close to Eshowe.

A SCIENTIFIC PAPER HAS LINKED JUPITER WITH SOLAR CYCLES

The paper, published in Solar Physics, predicts that the Solar Cycle 25 maximum will take place in 2026 and reach an amplitude similar to that of Solar Cycle 24. “This article deals with the prediction of the upcoming solar activity cycle, Solar Cycle 25. We propose that astronomical ephemeris, specifically

taken from the catalogues of aphelia of the four Jovian planets, could be drivers of variations in solar activity, represented by the series of sunspot numbers (SSN) from 1749 to 2020,” the abstract reads. “We conclude with a prediction of Solar Cycle 25 that can be compared to a dozen predictions by other authors: The maximum would occur in 2026,2 (± 1 year) and reach an amplitude of 97,6 ($\pm 7,8$), similar to that of Solar Cycle 24.”

[ARRL Letter]

THE FIRST SARL 40 M GRID SQUARE SPRINT

The first SARL 40 m Club Grid Square sprint for 2021 takes place from 12:00 to 13:00 UTC (14:00 to 15: CAT) on Saturday 27 February, which is also International Milk Tart Day. It is CW and phone activity; the exchange is an RS or RST report, the name of your Club and your grid square. You earn two points per QSO, 2 points for each new grid, and 1 point for each new Club. Your log must be submitted by midnight on Thursday 4 March 2021 to zs4bfm@mweb.co.za.

PROPAGATION REPORT

Hannes Coetzee, ZS6BZP, reports that the solar activity is expected to be at low levels. There are currently no sunspot regions visible and no solar flaring is expected. If you want to do your own frequency predictions, the expected effective sunspot number for the week will be around one. The 15 to 30 m bands will provide some DX fun. Please visit the website spaceweather.sansa.org.za for further information.

Finally, a diary of some upcoming events:

Today – Valentine’s Day, ZS5ZLB on 40 metres and the CQ WPX RTTY and the PACC contests 14 to 28 February – The ZS5ZLB Birthday activity

15 February – The Provincial schools open

16 February – The PEARS and Border ARC meetings

18 February – Registration for the VHF/UHF Workshop closes

20 February – The SARL and AMSAT SA VHF/UHF virtual Workshop; the Highway and Magalies ARC meetings

20 and 21 February – The ARRL DX CW Contest

23 February – The Secunda ARC meeting

27 February - International Milk Tart Day, the SARL 40 m Grid Square sprint, the CTARC meeting, and the West Rand Flea Market

6 March – The SARL YL Sprint for International Women’s Day

7 March – The SARL HAMNET 40 m Simulated Emergency Contest

To conclude our bulletin, a recap of our main news story:

If you have not yet registered for the SARL/AMSATSA VHF/UHF Workshop on Saturday 20 February, this is your last chance. Registration closes at midnight on Thursday, 18 February. Visit www.sarl.org.za for the programme and registration form.

This concludes our bulletin for this morning.

We invite clubs and individuals to submit news items of interest to radio amateurs and shortwave listeners, in both English and Afrikaans, if possible, by following the News Inbox link on the South African Radio League web page. News items to include in the bulletin should reach the news team no later than the Thursday preceding the bulletin date.

You are welcome to join us every Sunday morning for the weekly radio program, Amateur Radio Today at 10:00 CAT. The program can be heard on VHF and UHF repeaters countrywide and on 7 082 kHz lower side-band by courtesy of Louis, ZS5LP. A rebroadcast by Andy, ZS6ADY, can be heard on Monday evenings at 19:30 CAT on 3 620 kHz.

We welcome your signal reports, comments and suggestions; please send these by e-mail to artoday@sarl.org.za.

You have listened to a news bulletin compiled by Dennis Green, ZS4BS, edited by Herman Erasmus, ZS6CTA and read by

From the news team, best wishes for the week ahead.